Lembadion magnum (Stokes 1887) Kahl 1931

Most likely ID: n.a.

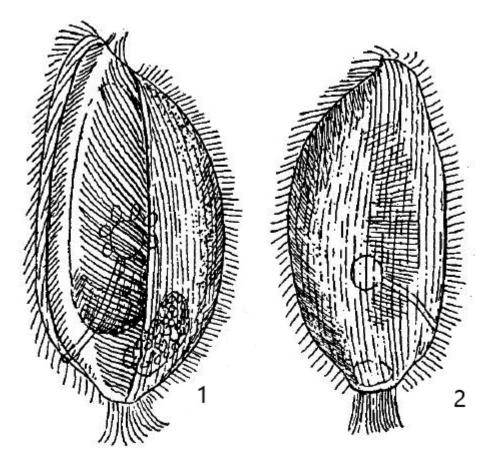
Synonym: n.a.

Sampling location: <u>Ulmisried</u>, <u>Simmelried</u>, <u>Bussenried</u>, <u>Bündtlisried</u>, <u>Purren pond</u>, <u>Mainau</u> pond

Phylogenetic tree: <u>Lembadion magnum</u>

Diagnosis:

- ovoid, with a pointed anterior end
- length 100-200 μm, width 50-100 μm
- very large oral apparatus reaching down to the posterior end
- left side of oral apparatus with adoral membranelle of cilia glued together
- right side of oral apparatus with an undulating membrane (hard to see)
- The pellicle shows a longitudinal striation on the anterior and posterior side
- contractile vacuole dorsally in mid-body, connected via a channel with the ventral excretion porus
- macronucleus kidney-shaped in the posterior third with an adjacent spherical micronucleus
- posterior end with a tuft of cilia



after Kahl (1 = ventral, 2 = dorsal)

Lembadion magnum

Lembadion magnum is present in all of my sites. The species does not seem to have very specific requirements for environmental conditions. One recognizes Lembadion magnum immediately by the huge adoral membranelle, which extends over the entire body length (s. figs. 1 a, 2 a and 3 a). This is also a feature distinguishing *Lembadion magnum* safely from <u>Lembadion lucens</u> and <u>Lembadion bullinum</u>, in which the adoral membranelle extends only to the posterior third of the body. In addition, Lembadion magnum is larger and the pellicle is not characterised by a pattern of regularely arranged squares, but has a longitudinal striation (s. fig. 4).

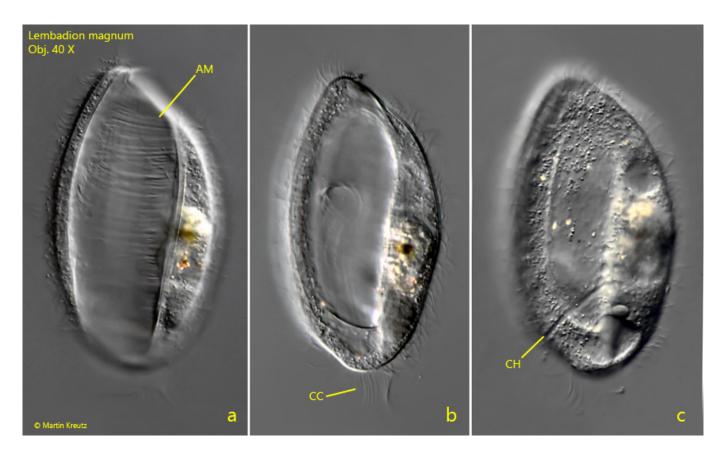


Fig. 1 a-c: Lembadion magnum. $L = 124 \mu m$. Ventral view of a freely swimming specimen in three focal planes. AM = adorale membranelle, CC = tuft of caudal cilia, CH channel between contractile vacuole and ventral excretion porus. Obj. 40 X.

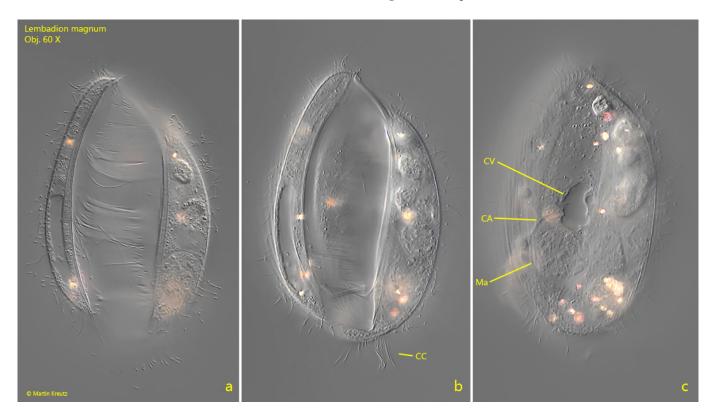


Fig. 2 a-c: Lembadion magnum. $L = 110 \mu m$. Ventral view of a second freely swimming specimen in three focal planes. CA = channel between contractile vacuole and ventral

excretion porus, CC = tuft of caudal cilia, CV = contractile vacuole, Ma = macronucleus. Obj. 60 X.



Fig. 3 a-c: Lembadion magnum. $L = 160 \mu m$. Ventral view of a third freely swimming specimen in three focal planes. AM = adorale membranelle, CC = tuft of caudal cilia, Ma = macronucleus. Obj. 100 X.

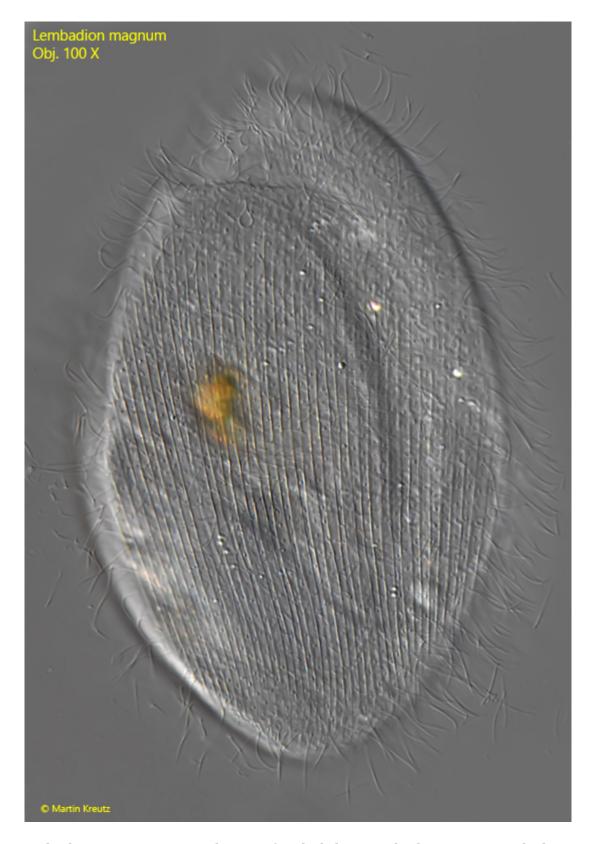


Fig. 4: Lembadion magnum. Dorsal view of a slightly squashed specimen with the longitudinal striation of the pellicle. Obj. 100 $\rm X.$



Fig. 5: Lembadion magnum. Dorsal view of a slightly squashed specimen with focus on the channel (CH) connecting the contractile vacuole (CV) with the ventrally located excretion porus. Obj. 100 X.